

200312768-1

RECEIVED
CENTRAL FAX CENTER

10/686,110

SEP 28 2007

IN THE CLAIMS:

The status and content of each claim follows.

1. (currently amended) A display system for displaying an image, comprising:
an image processing unit configured to process image data and generate a number of image sub-frames corresponding to said image data;
a modulator configured to modulate a light beam according to said image sub-frames;
a scrolling color device configured to scroll a plurality of colors across a face of said modulator, wherein all of said plurality of colors are present simultaneously on said face of said modulator, to produce a color light beam bearing said number of image sub-frames;
display optics configured to display said image from said color light beam; and
a wobbling device configured to displace said color light beam according to a cycle in which such that said image sub-frames are sequentially displayed in a cycle of spatially offset positions, said spatially offset positions being offset by less than a pixel width from each other, with varying spatial offsets
wherein said scrolling color device scrolls said plurality of colors across said face of said modulator an integer number of times during an image sub-frame time period corresponding to said each of said number of image sub-frames; and
further comprising a system timing unit configured to synchronize said scrolling color device and said wobbling device such that said scrolling color device scrolls said plurality of colors across said face of said modulator an integer number of times during an image sub-frame time period corresponding to each of said number of image sub-frames.

2. (cancelled)

200312768-1

10/686,110

3. (currently amended) The system of claim 2 claim 1, wherein said integer number of times said scrolling color device scrolls said plurality of colors across said face of said modulator during an image sub-frame time period is one.

4. (cancelled)

5. (currently amended) The system of claim 4 claim 1, wherein said system timing unit is integrated into said image processing unit.

6. (original) The system of claim 1, wherein said number of image sub-frames comprises a first image sub-frame and a second image sub-frame.

7. (cancelled)

8. (currently amended) The system of claim 7 claim 1, wherein said offset distance comprises a vertical offset distance and a horizontal offset distance, said second image sub-frame location being vertically offset from said first image sub-frame location by said vertical offset distance and horizontally offset from said first image sub-frame location by said horizontal offset distance.

9. (original) The system of claim 8, wherein said vertical offset distance and said horizontal offset distance are substantially equal to one-half of a pixel.

200312768-1

10/686,110

10-14. (cancelled)

15. (original) The system of claim 1, wherein said number of image sub-frames comprises:

- a first image sub-frame;
- a second image sub-frame;
- a third image sub-frame; and
- a fourth image sub-frame.

16. (original) The system of claim 15, wherein said wobbling device is further configured to displace said color light beam such that:

 said second image sub-frame is displayed in a second image sub-frame location offset by a first offset distance from a first image sub-frame location of said first image sub-frame;

 said third image sub-frame is displayed in a third image sub-frame location offset by a second offset distance from said second image sub-frame location of said second image sub-frame; and

 said fourth image sub-frame is displayed in a fourth image sub-frame location offset by a third offset distance from said third image sub-frame location of said third image sub-frame.

17. (original) The system of claim 16, wherein:

 said first offset distance comprises a vertical offset distance and a horizontal offset distance, said second image sub-frame location being vertically offset from said first image

200312768-1

10/686,110

sub-frame location by said vertical offset distance and horizontally offset from said first image sub-frame location by said horizontal offset distance;

 said second offset distance comprises said vertical offset distance, said third image sub-frame location being vertically offset by said vertical offset distance from said second image sub-frame location; and

 said third offset distance comprises said vertical offset distance and said horizontal offset distance, said fourth image sub-frame location being vertically offset from said third image sub-frame location by said vertical offset distance and horizontally offset from said third image sub-frame location by said horizontal offset distance.

18. (original) The system of claim 17, wherein said vertical offset distance and said horizontal offset distance are substantially equal to one-half of a pixel.

19. (original) The system of claim 15, wherein said scrolling color device scrolls said plurality of colors across said face of said modulator an integer number of times during a first image sub-frame time period corresponding to said first image sub-frame, during a second image sub-frame time period corresponding to said second image sub-frame, during a third image sub-frame time period corresponding to said third image sub-frame, and during a fourth image sub-frame time period corresponding to said fourth image sub-frame.

20. (original) The system of claim 1, wherein said image processing unit comprises a sub-frame generation function configured to generate said number of image sub-frames.

200312768-1

10/686,110

21-22. (cancelled)

23. (original) The system of claim 1, wherein said wobbling device comprises a galvanometer mirror.

24. (original) The system of claim 1, wherein said scrolling color device comprises rotating prisms.

25. (original) The system of claim 1, wherein said scrolling color device comprises a color wheel.

26. (original) The system of claim 1, wherein said plurality of colors comprises red, green, and blue.

27. (original) The system of claim 1, wherein said plurality of colors comprises red, yellow, green, cyan, and blue.

28-39. (cancelled)

40. (currently amended) A method of displaying an image, said method comprising:

processing image data defining said image and generating a number of image sub-frames corresponding to said image data;

generating a light beam bearing said number of image sub-frames with a modulator;

200312768-1

10/686,110

scrolling a plurality of primary colors across a face of said modulator during said generation of said light beam such that said light beam comprises a color light beam bearing said number of image sub-frames, wherein a band of each of said primary colors is incident simultaneously on said face of said modulator during said scrolling;

displaying said color light beam to form said image; and

displacing said color light beam such that each of said number of image sub-frames is sequentially spatially displayed in one of a cycle of [[an]] image sub-frame location locations, each of which is spatially offset from others of said image sub-frame locations sub-frames, and

synchronizing said scrolling of said plurality of primary colors across said face of said modulator with said displacing of said color light beam such that said plurality of colors scroll across said face of said modulator an integer number of times during an image sub-frame time period corresponding to each of said number of image sub-frames.

41. (cancelled)

42. (currently amended) The method of ~~claim 41~~ claim 40, wherein said integer number of times is one.

43. (cancelled)

44. (original) The method of claim 40, wherein said number of image sub-frames comprises a first image sub-frame and a second image sub-frame.

200312768-1

10/686,110

45. (original) The method of claim 44, wherein said step of displacing said color light beam further comprises displacing said color light beam such that said second image sub-frame is displayed in a second image sub-frame location offset by an offset distance from a first image sub-frame location of said first image sub-frame.

46. (original) The method of claim 45, wherein said offset distance comprises a vertical offset distance and a horizontal offset distance, said second image sub-frame location being vertically offset from said first image sub-frame location by said vertical offset distance and horizontally offset from said first image sub-frame location by said horizontal offset distance.

47. (original) The method of claim 46, wherein said vertical offset distance and said horizontal offset distance are substantially equal to one-half of a pixel.

48-52. (cancelled)

53. (original) The method of claim 40, wherein said number of image sub-frames comprises:

- a first image sub-frame;
- a second image sub-frame;
- a third image sub-frame; and
- a fourth image sub-frame.

200312768-1

10/686,110

54. (original) The method of claim 53, wherein said step of displacing said color light beam further comprises displacing said color light beam such that:

 said second image sub-frame is displayed in a second image sub-frame location offset by a first offset distance from a first image sub-frame location of said first image sub-frame;

 said third image sub-frame is displayed in a third image sub-frame location offset by a second offset distance from said second image sub-frame location of said second image sub-frame; and

 said fourth image sub-frame is displayed in a fourth image sub-frame location offset by a third offset distance from said third image sub-frame location of said third image sub-frame.

55-70. (cancelled)